

| SHEET INDEX            |           |             |
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| SYMBOL                 |           |             |
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| CURRENT DRAIN          |           |             |
| RECORD OF CHANGES      |           |             |
| CIRCUIT SCHEMATIC      | 2         | 1           |
| COMPONENT LIST         |           |             |
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| CLERK   | MOD | FUNCT    | T-ERN | LOC |
|---------|-----|----------|-------|-----|
| G8B1    | I   | 009      | 282   | 262 |
| W8P M6  | I   | 102      | 241   | 241 |
| W8P L0  | P   | 203      | 242   | 242 |
|         | P   | 301      | 246   |     |
| I8001   | P   | 117      | 249   |     |
| I8021   | P   | 017      | 2C9   |     |
| I8021   | U   | 018      | 2C9   |     |
| I8031   | P   | 118      | 279   |     |
| I8041   | P   | 013      | 299   |     |
| I8051   | P   | 1-3      | 2C9   |     |
| I8F 000 | U   | 215      | 248   |     |
| I8F 010 | U   | 314      | 248   |     |
| I8F 020 | U   | 211      | 248   |     |
| I8F 031 | U   | 310      | 248   |     |
| I8F 040 | U   | 116      | 247   |     |
| I8F 050 | U   | 214      | 247   |     |
| I8F 060 | U   | 205      | 247   |     |
| I8F 070 | U   | 304      | 246   |     |
| I8F 080 | U   | 206      | 246   |     |
| I8F 090 | U   | 305      | 246   |     |
| I8F 100 | U   | 010      | 246   |     |
| I8F 110 | U   | 109      | 245   |     |
| I8F 120 | U   | 207      | 245   |     |
| I8F 130 | U   | 307      | 245   |     |
| I8F 140 | U   | 312      | 242   |     |
| I8F 155 | U   | 212      | 242   |     |
| I8F 160 | P   | 000, 119 | 240   |     |
| I8F 170 | P   | 200, 311 | 240   |     |

| DIG ISS | PREV FUND | STD | IMP 10 DISC | SCL NOTL |
|---------|-----------|-----|-------------|----------|
|         |           |     |             |          |

|                   |                   |
|-------------------|-------------------|
| SYSTEM<br>USED ON | DESIGN<br>CONTROL |
| COMMON<br>SYSTEMS | IH                |

NOTES:

1.  GROUND RETURN
2. UNLESS OTHERWISE SPECIFIED:  
RESISTANCE VALUES ARE IN OHMS  
CAPACITANCE VALUES ARE IN MICROFARADS  
VALUES PRECEDED BY THE SYMBOL +(PLUS)  
OR -(MINUS) ARE IN VOLTS

- ### 3. BATTERY AND GROUND TERMINALS FOR INTEGRATED CIRCUITS

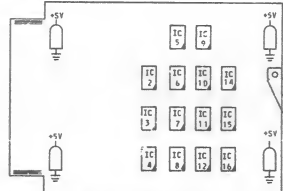
[illegible]

4. BATTERY AND GROUND TERMINALS FOR THIS CIRCUIT PACK ARE AS FOLLOWS:

| FUNCTION | TERMINAL |
|----------|----------|
| +5       | 000,119  |
| GND      | 200,319  |

5. HORIZONTAL MOUNTING CENTERS AT 0.50 INCH.

6. INTEGRATED CIRCUIT LOCATION GUIDE:
- 
- (COMPONENT SIDE SHOWN)



UNMARKED COMPONENTS ARE FILTER CAPACITORS

## SUPPORTING INFORMATION

| CATEGORY                                                                 | NO.                |
|--------------------------------------------------------------------------|--------------------|
| CIRCUIT PACK CODE                                                        | JK9                |
| CONNECTOR ON FRAME                                                       | 947C<br>OR<br>947A |
| SERIES FOR LATEST CLASS A<br>CHANGE (ANY HIGHER SERIES<br>IS ACCEPTABLE) |                    |
| ACCEPTABLE SERIES                                                        | 1                  |

**SHEET INDEX NOTES:**

1. WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE FIRST SHEET.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
5. THE LAST ISSUE NUMBER OF THE FIRST SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

**NOTICE-** NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

JK9 CIRCUIT PACK

### BUS TERMINATOR CIRCUIT

JKS

CPS-JKS

3 SHEETS

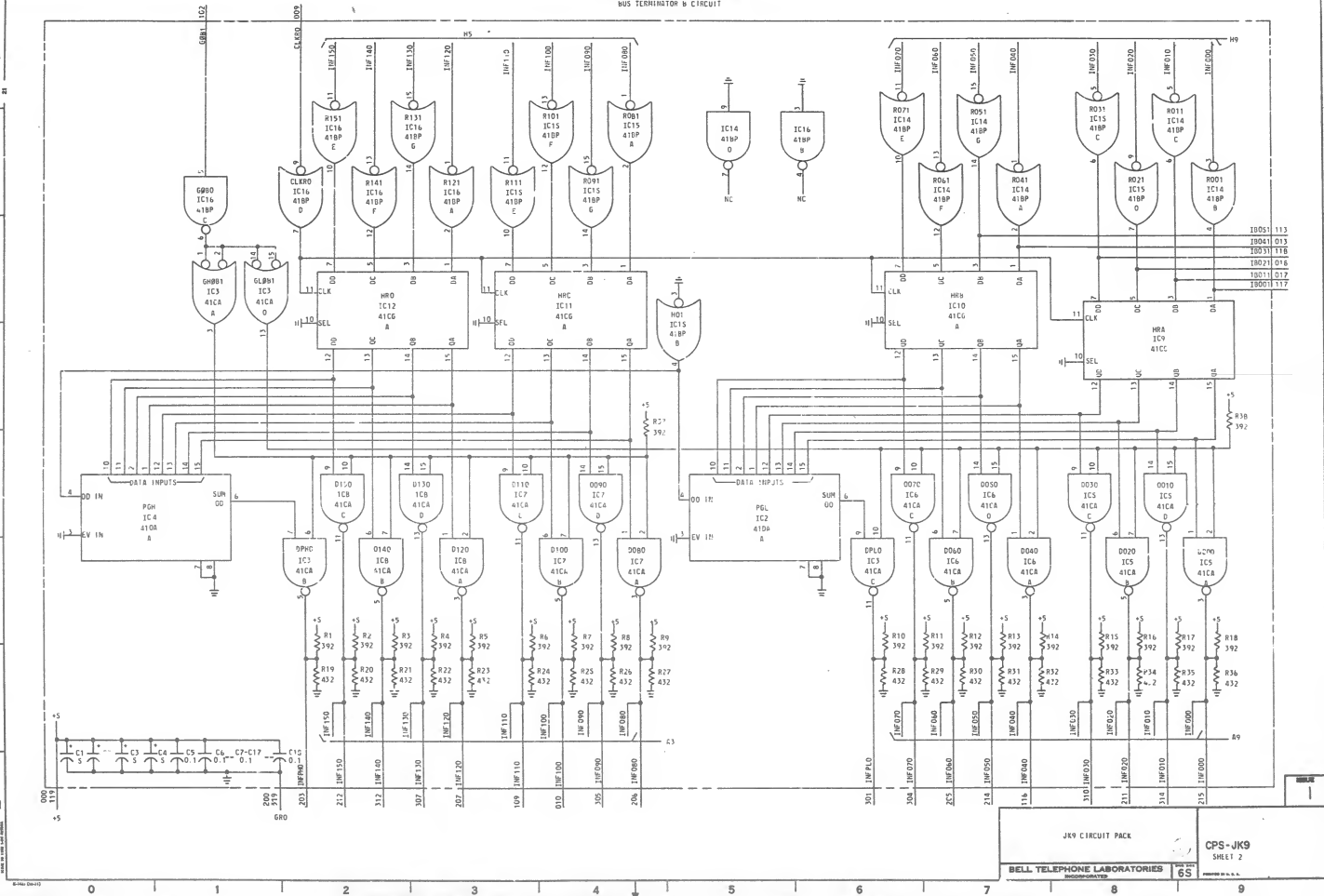
BELL TELEPHONE LABORATORIES  
INCORPORATED

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# PART OF CPS JK9

NUS TERMINATOR IN CIRCUIT

6X1-56C



JK9 CIRCUIT PACK

BELL TELEPHONE LABORATORIES

CPS-JK9

SHEET 2

60

# PART OF CPS JK9

BUS TERMINATOR 3

## COMPONENT LIST INTEGRATED CIRCUIT

| LOC<br>CODE<br>ELIM | IC2<br>410A |        | IC3<br>41CA |        | IC4<br>41DA |        | IC5<br>41CA |        | IC6<br>41CA |        | IC7<br>41CA |        | IC8<br>41CA |        |
|---------------------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|
| ID                  | DESIG       | SH LOC | DESIG       | SH LOC | DESIG       | SH LOC | DESIG       | SH LOC | DESIG       | SH LOC | DESIG       | SH LOC | DESIG       | SH LOC |
| A                   | PGL         | 2E5    | GHB01       | 2C1    | FGH         | 2E1    | 000         | 2F9    | 0080        | 2F7    | 0080        | 2F4    | 0120        | 2F3    |
| B                   |             |        | 0080        | 2F2    |             |        | 0020        | 2F8    | 0060        | 2F7    | 0100        | 2F4    | 0160        | 2F2    |
| C                   |             |        | 0080        | 2F4    |             |        | 0030        | 2E8    | 0070        | 2E6    | 0110        | 2E3    | 0150        | 2F2    |
| D                   |             |        | GHB01       | 2C1    |             |        | 0010        | 2E8    | 0050        | 2E7    | 0090        | 2F4    | 0130        | 2F3    |
| E                   |             |        |             |        |             |        |             |        |             |        |             |        |             |        |
| F                   |             |        |             |        |             |        |             |        |             |        |             |        |             |        |
| G                   |             |        |             |        |             |        |             |        |             |        |             |        |             |        |

| LOC<br>CODE<br>ELIM | IC9<br>41CG |        | IC10<br>41CG |        | IC11<br>41CG |        | IC12<br>41CG |        | IC14<br>41BP |        | IC14<br>41BP |        |
|---------------------|-------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|--------------|--------|
| ID                  | DESIG       | SH LOC | DESIG        | SH LOC | DESIG        | SH LOC | DESIG        | SH LOC | DESIG        | SH LOC | DESIG        | SH LOC |
| A                   | HRA         | 2C8    | HRA          | 2C7    | HRC          | 2C4    | HRO          | 2C2    | R041         | 297    | R081         | 294    |
| B                   |             |        |              |        |              |        |              |        | R041         | 299    | R051         | 255    |
| C                   |             |        |              |        |              |        |              |        | R011         | 289    | R031         | 298    |
| D                   |             |        |              |        |              |        |              |        | R021         | 295    | R021         | 289    |
| E                   |             |        |              |        |              |        |              |        | R071         | 286    | R111         | 263    |
| F                   |             |        |              |        |              |        |              |        | R061         | 287    | R101         | 284    |
| G                   |             |        |              |        |              |        |              |        | R051         | 287    | R091         | 286    |

## CAPACITOR

| DESIG  | CODE              |
|--------|-------------------|
| C1-C4  | 601A, 5           |
| C5-C18 | KS-19774 L5, D, 1 |

## RESISTOR

| DESIG   | CODE              |
|---------|-------------------|
| R1-R18  | KS-20616 L10, 392 |
| R19-R36 | KS-20616 L10, 432 |
| R37     | KS-20616 L10, 392 |
| R38     | KS-20616 L10, 392 |

## CIRCUIT DESCRIPTION

### BUS TERMINATOR B CIRCUIT

THIS CIRCUIT PACK CONTAINS A 16 BIT HOLDING REGISTER. THE 16 OUTPUTS OF THE REGISTER FEED INTO TWO 8-BIT PARITY TREES. THE OUTPUT OF EACH OF THE PARITY TREES IS A ONE WHENEVER THERE ARE AN ODD NUMBER OF ONES PRESENT AT THE INPUTS. THE STATES OF THE 16 INFORMATION LEADS J10000 J10150 ARE CLERKED INTO THE HOLDING REGISTER AT THE TRAILING EDGE OF A GROUND GOING PULSE AND CLKLINE. CLKRD, THE CONTENTS OF THE REGISTER AND THE ASSOCIATED PARITY BITS CAN BE GATED INTO THE INFORMATION LEADS BY SETTING LEAD 0001 TO A LOGICAL ONE.

TRANSMISSION LINE TERMINATIONS ARE PROVIDED BY THE RESISTIVE VOLTAGE DIVIDERS FOR EACH OF THE 16 INFORMATION BUS LEADS. THE 41CA'S ARE OPEN COLLECTOR BUS DRIVERS. THE 4 LEAST SIGNIFICANT BITS OF THE INFORMATION LEADS ARE INVERTED AND CONNECT TO JK9 FOR THE PURPOSE OF DEVICE DECODING.

JK9 CIRCUIT PACK

BELL TELEPHONE LABORATORIES  
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CPS-JK9  
SHEET 3

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